IN THE CLAIMS

1. (Original) A circuit for controlling volume ramp-up of a sound masking signal in a sound masking system, said circuit comprising:

an input port for receiving an external volume control signal;

a component for generating an internal volume control signal;

a component for storing said internal volume control signal in a non-volatile memory;

a component for generating said volume control signal based on said external volume control signal and said internal volume control signal; and

an output port for outputting a volume control signal to the sound masking system.

2. (Original) The circuit as claimed in claim 1, further including a component for changing the level of said internal volume control signal over a range to a final level.

3. (Currently Amended) The circuit as claimed in claim 1 [[or 2]], further including a component for retrieving said internal volume control signal from said non-volatile memory in response to a power loss condition, and using said retrieved internal volume control signal to generate said volume control signal.

4. (Original) The circuit as claimed in claim 2, wherein said component for generating an internal volume control signal comprises a component for setting the internal volume control signal to an initial setting and a component for changing the internal volume control signal in steps from said initial setting to a final setting.

5. (Original) The circuit as claimed in claim 4, wherein said final setting corresponds to a final volume setting for the sound masking signal.

6. (Original) The circuit as claimed in claim 4, wherein said component for generating said volume control signal utilizes an equation as follows:
volume control signal = C1 - (C1 - external volume control signal)*(C2 - internal volume control signal)/C1

wherein C1 and C2 are constants.

7. (Original) The circuit as claimed in claim 6, wherein said initial setting is approximately 4500 millivolts and said final setting is approximately 0 millivolts, and said constant C1 is approximately 12 and said constant C2 is approximately 120.

8. (Original) A volume ramp-up circuit for a sound masking output signal in a sound masking system, said volume ramp-up circuit comprising:

an input port for receiving an external signal;

a controller having a component for generating an internal control signal;

a non-volatile memory operatively coupled to said controller;

said controller including a component for changing said internal control signal;

said controller including a component for storing said internal control signal in said non-volatile memory;

said controller including a component for generating a volume signal for controlling the volume of the sound masking output signal, said volume signal being based on said external signal and said internal control signal;

an output port coupled to said controller for outputting said volume signal to the sound masking system.

9. (Original) The volume ramp-up circuit as claimed in claim 8, wherein said controller includes a component for reading said internal control signal from said non-volatile memory in response to a power loss, and said read internal control signal being used with said external signal to generate said volume signal.

10. (Original) A method for ramping a sound masking output signal to a desired volume level in a sound masking system, said method comprising the steps of:

inputting a volume signal from the sound masking system;

generating a control signal from an initial setting;

storing said control signal in non-volatile memory;

generating a volume output signal for the sound masking output signal, said volume output signal being based on said volume signal and said control signal;

outputting said volume output signal to the sound masking system.

11. (Original) The method as claimed in claim 10, wherein the step for generating a control signal comprises changing said control signal over a range in steps to a final value.

12. (Original) The method as claimed in claim 11, further including the step of recovering said stored control signal from said non-volatile memory and using said control signal with said volume signal to generate said volume output signal.

13. (Original) The method as claimed in claim 12, wherein said step of generating a volume output signal comprises determining said volume output signal as follows:

volume output signal = C1 - (C1 - volume signal) * (C2 - control signal)/C1

wherein C1 and C2 comprise constants.

14. (Original) The method as claimed in claim 13, wherein said initial setting is approximately 4.5 Volts and said final setting is approximately 0 Volts, and said constant C1 is approximately 12 and said constant C2 is approximately 120.

15. (Original) A sound masking system comprising:

a sound masking module for generating a sound masking signal;

a volume ramp-up circuit for ramping said sound masking signal from an initial volume setting to a final volume setting;

said sound masking module having an output for a volume setting signal;

said volume ramp-up circuit having an input coupled to said output for receiving said volume setting signal;

said volume ramp-up circuit including a controller, said controller having a component for generating a control signal;

said volume ramp-up circuit including non-volatile memory and said controller including a component for storing said control signal in said non-volatile memory;

said controller including a component for generating a volume ramp signal, said volume ramp signal being based on said control signal and said volume setting signal;

said sound masking module having an input for receiving said volume ramp signal, and said sound masking module being responsive to said volume ramp signal for setting a volume level for said sound masking signal.

16. (Original) The sound masking system as claimed in claim 15, wherein said controller includes a component for reading said control signal from said non-volatile memory in response to a loss of power to said sound masking module or said volume ramp-up circuit, and said retrieved control signal being used with said volume setting signal to generate said volume ramp signal for said sound masking module.